Prelab Assignment Chem 12 Name:

Lab 1 or 5

Purpose: In this experiment you will be using titration to find the mass of ASA acetylsalicyclic acid in a tablet. Once you find the mass of ASA, you will be calculating the percentage of acid in the tablet using the mass of ASA and the mass of the tablet.

1. Draw a structural diagram of ASA
2. What are the products in an acid base neutralization?
3. Calculate the molar mass of ASA.
4. How accurate should the readings be in successive titration trials?
5. Write a a chemical reaction using structural diagrams to show the acid base neutralization reaction between NaOH and ASA.

Lab 2 or 6

Purpose: In this experiment you will be exploring the difference between the three categories of alcohols as they react. You will also be comparing saturated and unsaturated substances when they react. This experiment involves substances that have strong odours so it is important to follow the proper disposal directions.

1. Draw the structural diagram for 1-butanol, 2-butanol, 2-methyl-2-propanol.
2. Label the diagrams above as primary, secondary or tertiary alcohols.
3. Write an example of an acid/ base neutralization reaction.
4. Write the acid base neutralization reaction between benzoic acid and sodium hydroxide.
5. Write the reaction between sodium acetate and hydrochloric acid.

Lab 3 or 7

Purpose: In this experiment you will work with esterification reactions. You will test their presence by odour. One way to check for odour is to take a stirring rod and stri the product and then wave the stirring rod in front of your nose after shaking off the residual liquid. Be sure to not touch it to your nose.

1. Find an example from your notebook and using different coloured pens/pencils show how the water molecule forms. Also write the names of all reactants and products underneath your example.
2. Draw a sketch of the structural diagram for ortho hydroxy benzoic acid.
3. Write down an example of a question where you are finding empirical then true formula(you may want to consult your notes from last year). P 310 and 312 in your text will be helpful if you have incomplete notes.
4. If m/M=v/V how would you calculate M? What does “big” V represent?
5. What is an isomer?

Lab 4 or 8

Purpose: The purpose of this experiment is to figure out what the “mystery ingredients are” in a flask. You will do several diagnostic tests to decide what the substances in the flask are. This is your chance to be a CSI.

1. Draw the structure for both sucrose and glucose. Labe each and write down some observations that you notice about each structure.
2. What are the three most common gases present in air?
3. What is a flame test? Give two examples of some common flame colours for characteristic elements.
4. Look up a msds sheet for sodium hydroxide and potassium hydroxide. What is your opinion on their safety. Write down two pieces of information from the msds sheets that you consider important. Please give the source of your msds sheet(s).

PLEASE STAPLE THIS PAGE TO YOUR ANSWERS WHICH YOU WILL SUBMIT ON THE DAY YOU START LABS.